



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,516	06/12/2001	Theodore Mayer III	45291/JEJ/P523	5331

23363 7590 12/17/2003

CHRISTIE, PARKER & HALE, LLP
350 WEST COLORADO BOULEVARD
SUITE 500
PASADENA, CA 91105

EXAMINER

FATAHI YAR, MAHMOUD

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 12/17/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,516

Applicant(s)

MAYER ET AL.

Examiner

Mike Fatahiyar

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5. 6) ☐ Other: _____

DETAILED ACTION

1. Claims 8-11 and 28, 29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8-11 are incomplete because they depend from parent claim 1 which calls for first and second displays where as claims 8-11 call for one or more forth displays. Thus, the third displays are missing.

Claims 28, 29 and 31 are also incomplete because they dependent from the parent claim 21 which calls for first and second image where as the noted claims call for the one or more forth images. Thus, the third images are missing. Correction and/or clarification is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8-10, 18-19, 21-26 and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Machtig et al(6,042,235).

Machtig et al disclose a method and apparatus for an integrated display system for producing a composite image comprising a first display(120), a second display(150), a third transmissive/reflective mirror(106) and a third display(112) which all function as

claimed (figure 14). Note, Machtig et al disclose various types of embodiments with different number of displays located in different locations facing different directions to produce a composite image (for example see figures 3-42).

As to claims 2 and 23, relative to the limitation "second display faces generally upward direction toward the transmissive/reflective mirror", Machtig et al in their figure 13 embodiment show that their second display (100) is facing upward toward the transmissive/reflective mirror (106) for producing the composite image.

In regard to claims 3 and 22, relative to the limitation "the second display faces generally downward towards the transmissive/reflective mirror", Machtig et al in their figures 11 and 12 embodiments show that the second displays (100 or 150) are facing in a downward direction towards the transmissive/reflective mirror (106) for forming the composite image.

As to claims 6 and 26, relative to the limitation "wherein the images from the first, second and third displays appear to the user to be substantially equidistant from the user, such is also the case with the systems of Machtig (see for example figures 5-19).

In regard to claims 8-10 and 28-30, relative to the limitation "one or more fourth displays, it should be noted that these claims as outlined above in paragraph 1 they do not call for a third display, Machtig et al in their figure 13 embodiment show a first display (120), a second display (150) and a fourth display (100) for producing a composite image wherein the images from the first, the second and the fourth displays appear to a user to be substantially equidistant from the user.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 11-13, 27 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machtig et al in view of Inova(6,247,815).

Machtig et al is discussed above. Inova disclose a method and an apparatus for an integrated display system for producing a composite image comprising a plurality of image projector displays (figure 1) for projecting a plurality of overlapped images wherein the image display projectors may be positioned at an angle with respect to one another so as the composite image appear to be on a curved screen (column 3, lines 33-57) wherein the projected overlapped images maybe edge blended so that the composite image appears as an apparently seamless image (column 3, lines 53-67; column 4, lines 1-4 and figure 6). Thus, it would have been obvious to one ordinary skill in the art to modify the system of Machtig et al with the above noted teachings of Inova such that to position the second and forth display areas at an angle with respect to one another so as to make the composite image appear to be on a curved screen or partially overlapping the images of the first and second displays and utilizing edge blending techniques so the composite image of the first and second display images appears as seamless image because both references are related to image projectors utilizing more than one image display device for producing an composite image further because when there is partially overlapped images, it is standard in the art of display devices to make

Art Unit: 2674

sure the edges of images match one another in order for the composite image appears as a seamless image.

6. Claims 14 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machtig et al in view of Higurashi et al(6,222,593B1).

Machtig is discussed above. Higurashi et al is cited to show that the concept of utilizing a distortion control circuitry used for modifying the images in order to correct aberration due to mechanical or optical misalignment in an image projecting system for producing a composite image is old(column 8, lines 7-32; see figures 8, 12 and 22). Thus, it would have been obvious to one ordinary skill in the art to modify the system of Machtig with the noted teaching of Higurashi et al such that to provide a distortion control circuitry so as to modify images in order to correct aberration because both references are related to image projecting system utilizing a plurality of image display devices to form a composite image.

7. Claims 15-17 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machtig et al in view of Miyakawa et al(5,028,994).

Machtig et al is discussed above. Miyakawa et al is cited to show that the concept of utilizing a pair of polarized electronic shutter glasses for seeing 3-D stereoscopic view of objects displayed on a composite image is old(column 2, lines 16-38; column 5, lines 36-68; See figures 1 and 6). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Machtig with the noted teachings of Miyakawa et al such that to provide a pair of polarized electronic shutter glasses in order to view displayed composite image in 3-D stereoscopic fashion

because both references are related to producing composite image from a plurality of image display sources and further because use of electronic LCD shutter glasses for viewing a displayed image in three dimensional is conventional in the environment of display devices.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Machtig in view of Tokoro et al(5,771,072).

Machtig is discussed above. Tokoro et al is cited to show that the concept of using a plurality of different image sources and a switch for switching between images from the image sources in a projecting system for producing a composite image is old(column 4, lines 30-67; column 5, lines 1-45 and see figure 3). Thus, it would have been obvious to one of ordinary skill in the art to modify the system of Machtig with the noted teaching of Tokoro et al such that to provide a plurality of image sources coupled to first image display source(120) or the second image display source(150) and to provide a switch for switching between the plurality of different image sources because both references are related to a projecting image system utilizing more than one image display source for producing a composite image and further because the source of image(i.e., camera, VTR, LDP, VCR or a computer) is not significant and they are substantially alternative equivalent of each other.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson, Hibner, II et al and Smith are made of record to various types of image projecting systems for producing a composite image.

Art Unit: 2674

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Mike Fatahiyar** whose telephone number is **(703) 305-6911**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

M. Fatahiyar *MF*

December 12, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600